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CORRESPONDENCE

The Rev. W. F. Clarke.

On this page we give our readers
an engraving of the Rev. W. F.
Clarke, which will be recognized by
those who know him, as a very good
likeness.

Mr. Clarke is an Englishman, and
was born in the city of Coventry,
March 31, 1824. He was educated for
the ministry, having been one of the
earlier students in the Congregational
College of British North America.
Before going to college he spent a
couple of years on a new Canadian
farm, and there contracted that love
of agriculture, which has been with
him a strong, if not a "ruling pas-
sion" ever since.

Mr. Clarke bought his first hive of
bees in the spring of 1864, with a view
of investigating the secrets of apicul-
ture, in order to fit himself to write
on that branch of moral economy. In
January of that year, he had under-
taken the editorship of the *Canada
Farmer*, owned by the late Hon. G.
Brown, and published in connection
with the *Globe* newspaper, the leading
daily and weekly of the Dominion.
He continued editor of that paper for
5 years, and during that time pursued
the study of apiarian science with un-
flagging interest. He was one of the
first to introduce the Italian bee, the
honey extractor, and other improved
appliances to the bee-keepers of Can-
ada. He represented the Dominion

at the Apicultural conventions held
at Indianapolis, Dec. 21, 22, 1871, and
at Cincinnati, in Feb., 1872, out of
which by the harmonious blending of
conflicting interests, the North Amer-
ican Bee-Keepers' Association, now
so prosperous, was organized. Mr.
Clarke held the Presidency of this
body for 2 years, and, until laid aside
by ill-health for a time, was one of its
most active members and officers.
On the death of the lamented Samuel
Wagner, Mr. Clarke purchased the
AMERICAN BEE JOURNAL, and, act-
ing under the advice of leading bee-
keepers, effected its removal from

of professional and literary labor. In
June, 1880, he became pastor of the
Congregational Church, in Listowel,
Ont., where he divides his time be-
tween the care of his flock, the Ag-
ricultural Editorship of the *Western
Advertiser*, and *Montreal Witness*, and
occasional contributions to a variety
of periodicals. Of late he has re-
sumed work on the AMERICAN BEE
JOURNAL, and we hope hereafter to
see his face and hear his voice at our
annual conventions of bee-keepers as
of yore.

Mr. Clarke has never practiced bee-
keeping as a business, but wholly as



Wm. F. Clarke

Washington, D. C., to Chicago, Ill.,
from which city the first number was
issued in Jan., 1873. In the December
following, the proprietorship of the
JOURNAL passed into its present
hands, but Mr. Clarke remained the
responsible Editor for more than a
year subsequently, and continued to
contribute to its columns for some
time afterwards, until sickness com-
pelled his retirement from that and
all other literary work. Happily he
betook himself to the recuperative in-
fluences of farm-life, regained his
health, and for more than a year past
has been able to perform his full share

a matter of scientific investigation
and interest, 24 colonies being the
most he has ever had at one time.

For the American Bee Journal

The Honey Crop in Central N. Y.

G. M. DOOLITTLE.

I see by the reports in the Weekly
BEE JOURNAL, that most of the read-
ers are having a prosperous season,
and I wish it was so with all; but so
far, little honey has been obtained by
the bees in Onondaga county, N. Y.,
and reports of like character are com-
ing in from many portions of this
State. Spring opened with us about

April 20th, at which time we found the
winter and spring had worked more
ruin to our bees than any season ever
known before. After getting things
in order, I found the best I could do
was to unite my bees down to 30 colo-
nies, for they stood as follows: 1 good
colony, 10 fair to medium, and 40 weak
to very weak. After reducing all to
30 in number, many of them were still
found to be quite weak, and had to be
helped by other colonies. Still, al-
though regretting the great loss, I have
been thankful it was no worse, when
I received so many reports from par-
ties who had lost all. Pollen came in
quite plentifully about May 1st, from
elm and soft maple, when the work of
building up our bees commenced in
earnest. On the 12th, golden willow
gave the bees a taste of honey, from
which our best colony gave us 5½ lbs.
of extracted honey. Right here I wish
to say that I know of no tree or plant
that helps the bees more than the
golden willow. It comes so early, giv-
ing the first honey, which seems to
give the bees new life and activity.
There are probably 50 smallish trees
in range of our bees, and they gener-
ally make a gain of from 5 to 9 lbs.
per colony of good honey from it, while
in bloom. We value this willow more
from the fact that it does not incline
to throw up sprouts or shoots as most
of the willow tribe does, but grows
into a tree similar to the basswood,
although it never attains a large size.
It grows readily from cuttings, and
will thrive in all moist (not wet) places.

But to return: May 21st apple trees
commenced to bloom, and as the
weather was generally good, our best
colonies stocked up with new honey;
the best one (which I concluded to
work for extracted honey) giving 19¼
lbs. The weather during May was ex-
tremely warm, the mercury going as
high as 92° in the shade.

June 1st, owing to the continued
warm weather, white clover began to
open, and as the ground was thickly
covered with it (as a result of the fa-
vorable winter for all herbage), I con-
fidently expected as good a yield of
honey from clover as in 1877. But
alas! on June 4th the weather changed,
and it has been cold, cold, rain, rain,
ever since. On June 6th there was a
frost which killed grapes, and even
our strawberries after they were nearly
one-half grown. On the 14th we had
another frost, with a week of cold,
cloudy weather, so the bees scarcely
looked out of their hives. It is
warmer now, but we have rain nearly
every day.

I have taken 28 lbs. of clover honey
from the colony for extracted honey,
and if it should come warm and dry
soon, a few days' good yield might yet
be obtained; otherwise, basswood is
our dependence for honey for 1881.

It has been the worst time for queen-
rearing I ever saw, for the cold nights
chilled most of the brood in newly
made nuclei. We now hope for better
times, and dislike to give this dark
side to the picture, but deem it no
more than right that the readers of the
BEE JOURNAL should know that all
does not always go smoothly in bee-
culture, any more than in any other
business.

I fancy I hear Mr. Miner and Mr. Thomas saying, "We told you so, when you were writing upward ventilation, and a good season with your dwindled down colonies, and now you find it as we told you." Well, gentlemen, you did well in your discussion of the matter, and I am willing to let it drop where it is, for if I should write further trying to prove myself correct, we should only get into a controversy instead of a friendly discussion. A friendly discussion benefits all, as it gives both sides of the matter under consideration; but a controversy benefits no one, and is anything but tasteful to the readers of our much esteemed AMERICAN BEE JOURNAL. Borodino, N. Y., June 27, 1881.

Why Did Mr. Root's Bees Die?

L. L. LANGSTROTH.

[The following article is taken from the July number of *Gleanings in Bee-Culture*. Mr. Langstroth wrote Mr. Root 5 questions, which, with the answers, are given in the article. The whole article will be read with interest.—ED.]

Your heavy losses in bees affect me painfully. While I admire your cheerful spirit under such reverses, I know that the failure to winter your bees is much harder to bear than the mere pecuniary loss. I speak from a vivid recollection of past experiences. Before I discerned what precautions were necessary for wintering bees successfully in movable-frame hives, I more than once found myself in the spring in a plight almost as bad as your own. I can fully indorse your explanation of some of the reasons why your reverses have been so much greater than those of some large bee-keeper in your neighborhood. I often met with great losses when my apiary was managed chiefly for the sale of Italian queens. At the close of a poor honey season my apiary often had many weak colonies. The temptation to winter every such colony which had a good queen was very great, as the demand at high prices for such queens in the spring was usually greater than could be met. It was only the fact that my location was a poor one for honey, and that I could get large figures for nearly all the queens that I could rear, that at all justified my course. If in addition to the queen business, the selling of bees quite late in the season by the pound had been practiced, the condition of my apiary after an unusually cold winter and late spring would probably have been very similar to that of your own.

I give some comments on your replies to questions which I sent to you.

1. "Did you spread the combs further apart?"

"I did not. Although recommended, so far as I know it has been mostly abandoned."

Mr. Harrison, of Buffalo, first called attention to the importance of keeping the combs in which the bees cluster for winter $\frac{3}{8}$ of an inch further apart than the natural breeding distance. In the old box hives there are usually spaces in which bees can cluster in much larger numbers than in movable frames properly spaced for the working season. In the very cold winter of 1872-3 I wintered in the open air in hives only $\frac{1}{4}$ of an inch thick, until February, a number of colonies which were estimated not to have over 2 quarts of bees per hive. All the bees of a hive were placed between 2 combs full of honey, which were kept nearly 3 inches apart, and they formed a single cluster, shaped like a ball. If the combs of these colonies had been left in their summer position, no amount of chaff used in any fashion could have saved them. Mr. J. S. Hill, of Mount Healthy, O., who wintered last season 112 colonies without losing one, and who has wintered on an average 80 colonies a year since

1868, without the loss of one, spreads the combs.

2. "Did you make winter passages in the combs?"

"Perhaps half of the combs have winter passages. I have never been satisfied it made any material difference."

In this you differ from those who have had the best success in wintering bees. Mr. Hill, for instance, never neglects this point, and I am satisfied that the power of passing from comb to comb through the heart of the warm cluster, besides saving the lives of many bees, greatly encourages early breeding. In the old box hive the holes around the cross-sticks for the support of the combs give the best of winter passages.

3. "Did you place burlap or any other non-conductor of moisture over the frames?"

"We used burlap, wood mats, and enameled sheets, but saw no difference in favor of either."

Whatever the material used for confining the bees below, it should, as a matter of course, permit the ready escape of superfluous moisture. With weak colonies in very cold winters, this is a point of great importance.

4. "Did you give the bees a good space above the frames for clustering in?"

"A part of them, perhaps nearly $\frac{1}{2}$, had an empty frame, or a frame of stores placed over the cluster. Our Palestine bees went into this upper chamber and starved, having plenty of stores below."

Reference to the back volumes of the AMERICAN BEE JOURNAL show that Bickford's quilt (afterward improved by you) is credited by him to the successful experiments which he witnessed in my apiary. I discarded the honey-board in wintering, using, instead, woolen rags, old carpets, etc., through which all superfluous moisture could pass, while sufficient animal heat was retained, explaining at length that the principle was the same as using suitable bed covering to keep ourselves dry and warm in cold weather. I have always regarded the elucidation and application of this principle as a great advance in practical bee-keeping. The letters of Huber, published only a few years ago, show how much his bees suffered from dampness; and before I so fully expounded my ideas in the *London Journal of Horticulture*, our English friends found that they could not use wooden boxes with any satisfaction. My plans, as seen by Mr. Bickford, and very fully described in the AMERICAN BEE JOURNAL, not only gave this free escape of moisture without too much loss of heat, but especially provided an ample warm space for the bees above the frames, so that the cluster could contract or expand at will. This saved the lives of many bees which, in very cold weather, even with the best winter passages, often failed to regain the center cluster, and died because they could not keep up the necessary heat.

I believe that, even in such a winter as the past, that with winter passages, combs properly spread apart, and a warm clustering space for the aforesaid purposes, bees could be better wintered in the open air in hives $\frac{1}{4}$ of an inch thick, than with any amount of chaff above, around, or below them, where these precautions are ignored; for in sunny weather such thin hives will warm up so as to dry out and allow the bees to reach their stores, while the chaff hives may remain cold and damp as a cellar. I will send you, in due season, an unpatented device used by Mr. Hill, for securing a warm nest above the clustered bees, which answers the end better than any one I have yet seen. Is there a man in all our northern country who can claim equal success with Mr. Hill in wintering bees? It hardly need be said that he is a pattern of skill, energy, and promptness. He has made his bees pay in a region where I think it is ordinarily more difficult to secure

one pound of surplus than two in the more favored northern locations.

5. "Did you feed your bees for winter with a mixture of grape and cane sugar?"

"Only a part of them, as I stated on page 278."

I think your losses were owing in part to your use of grape sugar. It is not at all necessary that grape sugar should contain any impurities to make it a very hazardous food in such a winter and spring as we have just had. From its low sweetening power as compared with honey or cane sugar, your bees which used it were forced to eat more than they otherwise would have done, and thus to suffer from a greater accumulation of feces. You say, "Had our usual April weather come on, we should probably have saved about 50 colonies that we lost." Is it not highly probable that, with the weather just as it was, you might have saved many of those colonies, if they had not been forced to succumb under the excess of feces produced by the undigested starch which so largely enters into the composition of grape sugar?

In noticing my account of Mr. D. McCord's heavy losses from wintering his bees on a syrup largely made from grape sugar, you express surprise that he "should have done so foolish a thing;" but you published last fall his account of the mixture he proposed to feed, without a word of disapproval or caution. You also say, in June *Gleanings*, "I have never advised the use of grape sugar for wintering." Surely, friend Root, your memory is at fault in this matter. In *Gleanings* for October, 1880, page 489, Mr. Crowfoot, in a letter to you, says, "Will you please tell me what you would feed bees that have got just about half enough honey to carry them through the winter?... I have about 700 colonies of bees, with about half enough honey to winter on."

To this you reply, "If I had 700 colonies with half enough stores for winter, I would supply the deficiency with frames of candy made of coffee A and best grape sugar in about equal proportions. If it is less trouble to you to feed in the form of syrup, make the syrup as described in the 'A B C.' ... They may die with this feed, but they may also die with natural stores, as past reports fully demonstrate; but I think, if properly done, such stores are just as safe for winter as natural stores. ... Very likely the grape sugar that is made now would be safe of itself; but to be sure of being on the safe side, I would use half coffee A, as above."

Certainly you have sometimes cautioned your readers about grape sugar as a winter bee-feed; but there can be no doubt that, as in your reply to Mr. Crowfoot, you have fully indorsed it as a safe food to enter at least $\frac{1}{2}$ into the preparation of winter stores. When you review carefully all your utterances, I believe not only that you will admit this, but that, with the experiences of the last winter, you will condemn its use for winter stores so plainly that no one can mistake your position. Perhaps it needed such a winter and spring as we have just passed through to demonstrate that no prudent bee-keeper can afford to use grape sugar as a winter feed in any proportions however small.

You say, "I am very sorry that grape sugar is used for bad or dishonest purposes; but even if it is, I cannot see why this should be a reason why we should not use it while rearing queens, and bees by the pound." So enormous are the frauds practiced by the adulteration of our commercial sweets by grape sugar and glucose, that it seems to me that beekeepers should lend no countenance in any way to those who make them. Already such suspicions have been awakened as greatly to curtail the sale of pure honey at remunerative prices. On selfish motives alone, those who deal in honest honey, and those who have the control of our bee periodicals, should set their faces as a

flint against articles made almost exclusively for bad purposes.

You say that the Buffalo Grape Sugar Co. have produced a sugar which "is as pure and simple a sweet as the best grades of maple sugar." Have you any warrant for such an assertion? and even if you had, is it right for you to call down a blessing from heaven upon a company which is making such enormous profits by selling their products almost exclusively to men who, by their adulterations, are cheating the poor man in his honey, candies, syrups, and sugars? If ever grape sugar and glucose are made as pure as the best maple sugar and syrup, and it becomes desirable to mix them with our other sweets, let them be offered at reasonable prices under their own names, so that we can do our own mixing; or let the mixtures be sold as such for what they are worth.

Friend Root, you have gained a host of warm friends by your candid admission of mistakes into which you have fallen, and by your readiness to notice improvements of others, even when they have superseded what has cost you much time and money; nor have you, from a false pride of consistency, been wont to persist in advocating what time has proven to be erroneous. It seems to many of your best friends, however, that on this grape sugar question you have acted under the influence of prejudices which have strangely warped your better judgment. We cannot question your sincerity, and only hope that, when you weigh well this matter in all its bearings, you will feel that you ought to enlist the great influence of your name and journal against a business which, as it is now conducted, enables unscrupulous men to commit such monstrous frauds.

Your sincere friend,
L. L. LANGSTROTH.

Mr. A. I. Root's reply to the above article is as follows:

May the Lord bless you, my good kind friend, for your frank and faithful way of taking your old friend to task. I certainly had forgotten giving the advice you quote, and felt sure that I had never said anything favoring grape sugar so strongly for wintering. At the same time, I have no reason for thinking it any worse than stores of honey. More than 10 years ago we had abundant proof of the advantages of sealed stores of coffee A sugar syrup over natural stores, and the past winter has abundantly corroborated it again. I have always sold grape sugar under its true name, and, as far as I know, so also have the manufacturers of whom I bought it, and also those to whom I sold it. If the experience I have had of the world is worth anything, I am sure I am right in feeling that the unjust (and I might say foolish) prejudice against grape sugar is going to pass away, and it will come out and stand as safely as a valuable product from Indian corn as does starch. Evidences of this are now scattered through our papers. Notwithstanding this conviction, as grape sugar seems, without question, to "make many of my brothers to offend," I will, for the present at least, drop it. I feel sure we shall winter better next winter, but I think it will be greatly due to something more important than the substitution of granulated sugar for grape, viz: giving the bees more of my brains individually. As an excuse and apology to our readers for the inconsistencies friend L. has so kindly pointed out, I would say that I am getting to have a great business on my hands. In my zeal for getting boys and girls to work (that immortal souls may be saved), a great traffic has opened in supplies. Brains are so much needed at every turn, and so many points are gone over in a single day, that I am no longer able to remember what I have written and advised, as I did a few years ago. In the next edition of the "A B C," and also in our price list, I will, at least for the present, advise against the use of grape sugar.

For the American Bee Journal.

Observations about Several Things.

G. W. DEMAREE.

Mr. Moon, in his criticism on my article on the purity of the Italian race, disposes of the troublesome question of "color" in a very convenient, if not a very logical way. He tells us, in language which seems to indicate the loss of patience, that the idea that color has anything to do with the purity of the Italian "is all bosh."

I have to say that if Mr. Moon will point out a single case in all animate nature wherein "color has nothing to do" with the identity and purity of the species of animals, fowls, and insects, I will confess that he, at least, has made a new discovery. If he should tell us about a white blackbird, or of a black yellow-jacket, would there be any "bosh" about that?

The Italian is classed with the yellow or light-colored race of bees. Now if we discover bees among them as black as night, or any material variation in color, do we not reason logically when we conclude that it is an out-cropping, the result of mixture of blood? We prefer reason to mere assertion. The 3-band test of purity, though perhaps the most reliable of any single feature yet discovered, is, nevertheless, very unsatisfactory. Are we to accept as true the absurd and illogical doctrine, propagated by some of our vendors of queens and bees, that a queen whose progeny must be filled with light-colored honey and placed upon a window in order to exhibit the faint outlines of 3 precious bands, is just as pure as a queen whose progeny shows the orange-colored 3 bands under all circumstances? I, for one, do not accept it. There are degrees of purity, and when we admit this much, we admit, in fact, that the race as a whole is not pure in the sense of being unmixed. I wish it understood that I do not value the Italian bee, because of its sporting character, —but rather the more while I may make my own selections.

"Dysentery" is a trouble rarely ever seen in this climate, apparently because our bees can usually take a flight once in every week or two. I have never seen but two cases that amounted to anything, and one of them was caused by approaching starvation. The colony was cured by feeding. Dr. Southwick's "starvation theory" is just as reasonable as that of the other bee-doctors who attempt to find just one cause for the disease.

I am sorry that Mr. Heddon asserts that bees will attach the comb to wood separators, because it indicates he writes about some things about which he knows but little. I have used wood separators for several years, made of poplar, $\frac{1}{8}$ inch thick, nicely dressed, and have to see the first comb injured by being attached to the separator. I prefer wood to tin, because the former absorbs the moisture, while the latter condenses it.

Mr. Doolittle's advice to breed from the queens whose colonies produce the most honey is a good "theory," but, in my opinion, poor practice. Condition has a great deal to do with the working capacity of a colony of bees. In 1878 I had a colony of so-called dark Italians, which ran right off from my pretty light-colored bees, and I was ready to breed from her exclusively. Well, in 1879 she was beaten by 2 of her light-colored sisters of the same age, and I changed my mind. I have found that all the prodigies in the way of queens which I have had the good luck to own were daughters of my fine selected queens, and not one of them were capable of transmitting her energy to her queen posterity with any certainty. I see no reason why we should discard the established rules of stock breeders, i. e., breed from the purest stock rather than from accidental specimens.

One of my queen-rearing colonies "balled" and killed their queen when she returned from an unsuccessful bridal trip, the other day.

Christiansburg, Ky.

For the American Bee Journal.

My Report on Wintering.

D. A. JONES.

As I could not give my personal supervision to the preparing of my colonies for winter last year, I consider I have been very fortunate. My men have all been trained by myself, yet I prefer to look more closely after preparing them than I was able to last fall. At one of my bee farms, about 3 miles north from my home apiary, William Cause, manager, there were 162 colonies placed in the sawdust wintering house, and 151 put out in the spring in good condition; but 4 of those that died, starved; they were Palestine bees, and the queens had bred until all their stores were gone; 2 were drone layers, 1 a very small nucleus, and the others were the poorest ones, especially in young bees.

At my bee farm, northeast of my home apiary, about 4 miles distant, where there were over 200 colonies, 9 died, and 3 were nearly gone, so that they had to be united with others.

Our house apiary, where there were nearly 800, the loss was somewhat greater, but that was owing to selling so many bees late in the fall, and having only old bees in the hives. Then to make matters worse, about 50 queens arrived from the East, very late, after winter had set in, and in some instances, I took a comb from each of several colonies, with bees to form nuclei for them; others we divided, and in still others we removed the old queens and introduced the imported ones, thus disturbing and breaking up the cluster of the colonies, without giving them a subsequent flight for many months; they suffered very much.

All good colonies that were not tampered with late, came through safely, where they had stores enough. I hope to be able, at some future time, to give more particulars as to my method of wintering. I always try to make all my preparations in the fall, and give them a "good letting alone" in winter.

My bees now are booming, but it is so cold and windy upon the Georgian bay, that I have experienced great difficulty in getting queens mated there. I have now from 100 to 200 colonies devoted to rearing queens, and will soon have more than 200. The Palestine queens will be in great demand, as soon as reports are given from many disinterested parties. I find that those from some parts of the Holy Land far outstrip others.

Now, Mr. Editor, I will send you one to keep in your apiary to test it, and show it to your visitors.

The Rev. L. L. Langstroth, Mr. Muth, and others, have them to test. If you and some of our other first-class bee-keepers test them, we shall arrive at the truth as to their merits. If handsome bees is one of the qualities required, they are ahead; and in prolificness they can, I think, beat the world. Mr. P. P. N. E. Pelissier, of Quebec, reports 7,580 eggs laid in 24 $\frac{1}{2}$ hours. I will send you another letter from Mr. Benton next week.

Beeton, Ont.

For the American Bee Journal.

Transferring Bees from Box Hives.

OSCAR F. BLEDSOE.

Having had some experience in transferring, I will give my method, being led to give my thoughts on this subject by reading an article from Mr. G. W. Demaree, in the JOURNAL of the 29th of June, in which he seems to think he has reached the *ne plus ultra* in transferring. I transfer at any time when there is a flow of honey. I fill the lower story of the Mississippi bee hive (having dubbed the hive I use with that name) with 9 frames, either filled with empty comb or comb foundation, or having good starters. I put on a second story, and having taken 9 frames filled with honey and

brood from 1 or 2 of my strongest colonies, fill this second story with same. I brush off the bees from these frames containing brood and honey, and leave their places in the hives from which they are taken vacant. I provide myself with a smoker, dull hatchet or cold chisel to cut nails, mallet, large feather (a single feather is better than a bunch), a vessel covered by a sheet, and a knife. I put the frame hive prepared as above in place of the box hive, without any ceremony, only blowing in enough smoke to keep the bees from flying at me. I lay the box hive on one side, the lower or open part turned toward the frame hive, and place boards so that the bees can crawl into the frame hive easily. I then commence to cut the box hive apart very rapidly, taking the combs as fast as the bees can be brushed from them, and putting them in the vessel at my side. As soon as all the combs are taken and the bees brushed off, occupying only a few minutes, the transferring is complete so far as the box hive bees are concerned. The advantages of this process are, 1st, its rapidity—no previous "knocking first to one side and then to the other," no "waiting a little while for them to fill themselves with honey;" 2d, its safety and certainty, inasmuch as to add to the confusion and dismay of the transferred bees, no patching up is enforced on them—no combs with dripping honey are given them to invite robbers, and if the equivalent of their brood and honey are put in their new home, instead of being checked, they are actually bettered in their condition. I will add that if I can catch the black queen and have an Italian queen or queen-cell to spare, I kill her and thus Italianize and transfer at the same time.

After driving the black bees into the frame hive, I take the vessel containing the combs to a close room, and having transferred the combs to frames, put the frames in the hives from which the frames of brood and honey were taken to give the black bees. Fixing up these combs and "handling" the dripping honey often gives a new impetus to these last named colonies, so that transferring by this method, if not an advantage "all around," is, at least, not a decided check. I use no tin-fixings, thorns or pegs, or clasps to hold the combs in the frames, but simply coarse cotton thread, or better, the common paper package-cord of the stores, that the bees can cut easily and remove from their hives.

Grenada, Miss., July 3, 1881.

Rural New Yorker.

How to Rear Good Queens.

W. Z. HUTCHINSON.

As queens are liable to die, or to become impotent, and as the increase of colonies require queens, it is necessary for the beginner to learn how to rear them. Preparations for queen rearing should be commenced as early as the weather is warm enough for the bees to fly every day. The best queen in the yard—that is, the one whose colony, all things considered, has given the best results—should be selected as the one from which to rear others. Some other colony, containing a choice queen, should be allowed to rear the drones. A frame of drone comb should be placed in the centre of the brood-nest, and the colony stimulated by feeding, in order to have drones flying from this choice queen as soon as possible. Inferior queens can usually be prevented from rearing drones, by allowing them no drone comb. As soon as some of the drone brood is sealed over, a frame of dry, clean, light-colored worker comb should be placed in the center of the colony containing the queen from which queens are to be reared. In 2 or 3 days the queen will fill this comb with eggs, and in 3 or 4 more days the eggs will hatch into minute larvae, when both the queen and all the brood should be removed from some strong colony, and this frame of just-hatched

larvae should be placed about the center of the hive. The queen that is removed may be kept in a "nucleus" until she is needed in forming a colony, and the brood that is removed may be given to the other colonies. This queenless colony will immediately commence building queen-cells, and as there is no brood in the hive except that from the choice queen, all the queens will necessarily be her daughters. Cutting off edges of the comb, or cutting holes in the same, where there are eggs or just hatched larvae, will almost always insure the building of queen-cells in such places. It will be noticed that the queens are started from eggs or from just-hatched larvae, as the bees are given no other, and so are fed the "royal jelly" from the first.

In a week the queen-cells will be sealed over, when the apiarist should form his "nuclei." A "nucleus," in bee-keeping, is a colony on a small scale—for the purpose of rearing queens. A nucleus hive may be nothing more than an ordinary hive, with the space contracted by a division-board to the capacity of 2 or 3 frames. By using 2 division-boards and having an entrance at each side of the hive, one hive can be made to accommodate 2 nuclei.

After the hives for the nuclei are all prepared and placed upon their stands, then the bee-keeper should go to different hives of the apiary and take out 2 or 3 frames for each nucleus (at least one comb in each nucleus should contain brood), till there are as many nuclei prepared as there are queen-cells to dispose of. The bees should be left adhering to the frames of comb, only one must be certain that no queen is removed. To be sure of this, do not take the frames away until the queen is found. I sometimes shake off into the nucleus the bees from one or two more combs, so that, even after the old bees have returned, there will yet remain a sufficient number of young bees. The next day after the nuclei are formed, each one of them should be furnished with a queen-cell. In cutting out the cells a small piece of comb should be cut out with each cell, and great care should be taken, both in cutting them out and in fitting them into the comb in the nuclei, not to press or dent them in the least. In 2 or 3 days the queens will hatch, and in about 10 more days they will be laying.

After cutting out all the queen-cells from the old hive, another comb of larvae can be given it and another lot of queen-cells obtained, or, if the apiarist has a sufficient number, he can leave one queen-cell, which will soon furnish this colony with a vigorous queen. After a laying queen has been removed from a nucleus, another queen-cell can be inserted, and in 10 or 12 days it will again have a laying queen.

Rogersville, Mich.

Local Convention Directory.

1881. Time and Place of Meeting.

- Sept. — National, at Lexington, Ky.
- Kentucky State, at Louisville, Ky.
- Oct. 6 — Union Kentucky, at Shelbyville, Ky.
- G. W. Demaree, Sec., Christiansburg, Ky.
- 11, 12 — Northern Michigan, at Maple Rapids, O. R. Goodno, Sec., Caram City, Mich.
- 11, 12 — Northeastern Wis., at Berlin, Wis.
- 12 — Central Ky., in Exp. Bldg., Louisville, Ky.
- W. Williamson, Sec., Lexington, Ky.
- 23, 24 — Northwestern District, at Chicago, Ill.
- C. C. Coffinberry, Sec., Chicago, Ill.
- 27 — Central Michigan, at Lansing, Mich.
- George L. Perry, Sec.
- 27 — Western Mich., at Berlin, Mich.
- Wm. M. S. Dodge, Sec., Coopersville, Mich.
- 1882.
- Jan. 25 — Northeastern, at Utica, N. Y.
- Geo. W. House, Sec., Fayetteville, N. Y.
- April 11 — Eastern Michigan, at Detroit, Mich.
- A. B. Wood, Sec., Detroit, Mich.
- 27 — Texas State, at McKinney, Texas.
- Wm. E. Howard, Sec.
- May — Champlain Valley, at Bristol, Vt.
- T. Brookins, Sec.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

The Northern Michigan Bee-Keepers' Association will hold its fourth Annual Convention at Maple Rapids, Clinton Co., Mich., Oct. 11 and 12, 1881. O. R. GOODNO, Sec.

THE AMERICAN BEE JOURNAL

THOMAS C. NEWMAN.
EDITOR AND PROPRIETOR.

CHICAGO, ILL., JULY 13, 1881.

On Saturday, July 2, after the BEE JOURNAL of last week was on the press, the bees in our great hive of nature were thoroughly alarmed, because of an attack made upon the person of its chief. Had the intruder been within reach of the infuriated bees, they would quickly have stung him to death. The person attacked was Pres. Garfield; the assassin was a notorious fanatic by the name of Guiteau; the weapon used was a large revolver; the work was clumsily done, at the depot in Washington, as the President was about to take the train, —but the President still lives, to rejoice the hearts of fifty millions of freemen. The messages of condolence from all the civilized nations of the world, present a beautiful and affecting spectacle.

Suspended. — The small monthly, "Young Hearts and Little Hands in Apiculture," that was published by J. W. K. and A. G. Shaw, two clever boys, at Loreauville, La., is no more! In its June number, just published, the editors give their valedictory. It has lived just two years. We expect to hear from the "Shaw" boys at something greater, if life be granted them to become men.

The Minnesota Agricultural and Mechanical Fair and Exposition will be held at Minneapolis, Minn., September 5 to 9, 1881. It promises to be a very attractive Fair. We desire to engage some good judge of bees and honey who may attend that Fair to make a brief report of such for the BEE JOURNAL, and will furnish 2 season tickets and the necessary documents as our reporter. Who will accept this proposition?

Hern Vogel succeeds the late Hern Andreas Schmid, as editor of the *Bienen-Zeitung*. The *Zeitung* is now in its 37th year of publication, and is the oldest bee paper in the world. We extend our congratulations, and welcome its new editor, Hern Vogel, whose acquaintance we were very glad to have made at the Austro-German Bee Congress, at Prague, in 1879.

The Northwestern Convention at Chicago. — It will be observed, by reference to our local convention directory, that the time for the meeting of the Northwestern District Convention has been postponed till Oct. 25 and 26, 1881, instead of Oct. 11 and 12. It was found other Societies were entitled to the latter days for their Conventions, by priority, and hence the change. We think the change a good one, as it will enable members of local Societies to perfect arrangements for a general attendance, and give opportunity for a review of the summer's work.

Mr. Langstroth on Glucose.

It is with the greatest satisfaction we give space to the able and practical article from the pen of the Rev. L. L. Langstroth, to be found on page 218. His strictures on the uses and abuses of glucose are exhaustive and convincing, while the whole article will well repay careful and studied perusal. Particularly worthy of attention are the following sentences: "So enormous are the frauds practiced in the adulteration of our commercial sweets by grape sugar and glucose, that it seems to me that bee-keepers should lend no countenance in any way to those who make them.... On selfish motives alone, those who deal in honest honey, and those who have the control of our bee periodicals, should set their faces as a flint against articles made almost exclusively for bad purposes.... If ever grape sugar and glucose are made as pure as the best maple sugar and syrup, and it becomes desirable to mix them with our other sweets, let them be offered at reasonable prices under their own names, so that we can do our own mixing; or let the mixtures be sold as such for what they are worth."

It is gratifying to know that Mr. Langstroth's able arguments have not been altogether in vain, for the closing sentence of Mr. Root's rejoinder indicates that he is "almost persuaded," although his promise is made with an evident mental reservation. This sentence reads: "In the next edition of the 'A B C,' and also in our price list, I will, at least for the present, advise against the use of grape sugar."

It will be observed that Mr. Langstroth takes the same view of grape sugar and glucose as a commercial product, that we advocated long ago, and is as unalterably opposed to its being offered and sold for anything else. We have always assumed that any article of real merit has nothing to fear from being honestly trafficked, while a product possessing no real merit should not be imposed upon the public under an assumed name. No amount of commercial enterprise can ever justify dishonest dealing.

Fraternal Appreciation. — There is, perhaps, nothing more indicative of a paper's real merit than the frequent appearance of articles accredited to it, and nothing more encouraging to an editor than the receipt of private encomiums like the following, from those who "know whereof they speak":

The Rural New-Yorker, }
34 Park Row, N. Y. }

T. G. NEWMAN, Esq. — Dear Sir: Allow a word of congratulation on the work you are doing for apiculture by means of your paper. Its able discussions of all topics relating to the apiary have won for it an enviable reputation among bee journals. Success to you! Fraternally,
JAS. W. DARROW.

Seldom have we felt more pleasure than we experienced upon the receipt of the above note from the office of the *Rural New-Yorker*, a paper which stands pre-eminent among the agricultural papers of the world. It is unnecessary to return the compliment, as the *Rural* is read and appreciated wherever scientific and intelligent agriculture prevails.

Explorations in the Orient for Bees.

The following very interesting letter from Mr. Frank Benton, will be read with much interest. The results of his expedition are not flattering. After the expenditure of a small fortune, many months of valuable time and enduring hardships, that but few men could or would endure; the result is that Mr. Benton has a colony of small bees that are "not valuable," and a colony of *Apis dorsata* that are in such a condition as not to be "likely to reach its destination, Cyprus, alive." The result is anything but flattering, and the contemplation of it by Mr. Jones must be rather discouraging. Nevertheless let us hope that there may be some result that will, in a measure, give some solace for his many expenditures.

Mr. Benton's letter is as follows:

Steamer "Djemnah,"
Red Sea, May 3, 1881. }

FRIEND JONES: No doubt you look for a long account telling you that I have with me scores of colonies of bees of various kinds and races, some of them far more valuable than those we now cultivate, and I should be very glad indeed to be able to give such a report, but instead, I must say I have with me but two races of bees and but two colonies of *Apis dorsata*, the Great East India Bee, and one of *Apis florea*, a race of very small bees, curious, but not valuable, and furthermore, I cannot say that the colony of large bees is in such condition as to be likely to reach its destination alive.

Now, notwithstanding this very meagre report, I am justified in saying that I have exerted myself to the utmost, and have risked my life and health times without number, feeling that I must do the work I had undertaken if it were a possible thing. The fact is, I have undergone hardships, and have exposed myself to the attack of disease as well as to the dangers of instantaneous death in a number of ways, to such an extent as I could by no means be induced to do again, even for a very considerable sum. As it is, my only penalty has been a severe tropical fever—the jungle fever of Ceylon—which afflicted me during 10 days, occasioning me much suffering; some personal expense for clothing necessary to the journey as well as others spoiled by climatic influences. It was an utter impossibility for me to reimburse the money the journey has cost. I shall likely return to Cyprus with £12 to £15, but if I had had a year's time in the East, and had found very valuable bees I do not believe I could have paid expenses.

I aroused much interest in Ceylon while I was there. Even with the utmost economy, traveling and getting along, oftentimes, in such a manner as the Europeans living in the East consider "mean," the expense of such a journey is immense, and then it takes so long to accomplish a little. This is partly owing to the character of the people living there, and partly to the climate, to which no European or American dare expose himself as he would at home.

I will endeavor to give a short account of my journey since leaving Java, having told you, I think, of my fruitless and trying search there. You will see from what follows why I have no more to show for the time, money and trouble I have been obliged to use in testing this matter.

Immediately upon my arrival in Ceylon from Java I proceeded to one of the jungle districts where I had been informed I would be likely to secure some of the large bees. I had a letter of introduction to one of the native chiefs—the head one of this district, and a man more interested in bees than any other native—perhaps I

might say person, in Ceylon. This letter not only secured me his influence with the natives, but an invitation to remain in his home during all my stay in his locality. Within two miles of his home I saw the first colony, or, in fact, the first specimen of *Apis dorsata* which ever greeted my eyes.

The bees were about 50 feet up a tree, on a branch to which it was not easy to get. Yet I climbed up so as to reach out and take off in my hands some of these wonderful bees, as large as queens, blue backs with shining blue wings and orange-colored bands under them. The comb, which was new, hung from the under side of the branch about 15 inches long, and the bees hung down 6 or 8 inches lower, looking like great wasp-colored hornets, beautiful but dangerous looking. As long as wholly undisturbed, or merely taken off from the bottom of the cluster with the hand they made no effort to sting, but a breath or the least jar, or even the scent of the body blown by the wind towards them irritated them much. When one had stung me or my clothing, I have forgotten which, the rest fast became wild with excitement, constantly whizzing out from the cluster in great anger. They kept coming in great numbers until I thought it prudent to retire. So down the tree I went, but my new-found friends accompanied me, as I went out into the jungle, "sticking closer than a brother." I received many stings, yet found them not quite as severe as those of our bees, and the bees themselves were more awkward about stinging than are our bees. At last I got rid of them by killing and capturing them, but for some time others kept trying to sting even when I was rods from the tree. With the help of some natives I secured this comb and a part of the bees, but the rascally Cingalese, being afraid of the bees, let their torches blaze up, although they had been cautioned against it, and thus burned many of the bees. I could find no queen among the remainder, and of course soon played out. They took no care of their brood, so I was obliged to throw away the comb shortly after. Strange to say, these bees, so ferocious in their forest-home, where nothing but smoke will bring fear to them, can be handled with no fear and without smoke, when in movable frame hives, provided they be not jarred or breathed upon, and no quick motions be made. After this I could get no more trace of the large bees near at hand, with the exception of a single colony very high up a large tree. I had learned that at night was the best time to handle them, if I wished the bees, and so in the night I climbed this lofty tree which stood on the side of a large, steep, rocky, and jungle-covered hill; but except a severe stinging and much fatigue there was no result of this venture, for the bees were in too dangerous a situation. Many times when I had made long journeys to secure some, which had been found for me, I was disappointed by finding that some one had cut the combs for the honey, or that these were new swarms, only temporarily settled, and which had soon gone away.

An excursion of a few miles was a long journey, because it had to be made with an ox-cart, generally in the night to avoid the heat, and as much time would be lost in getting a cartman and getting him under way as it took to make the journey, or the way would be through almost impenetrable and rocky jungles where progress, on foot, even, was slow and laborious.

A trip to Bamberagalla (*Apis dorsata* rock), 22 miles with ox-cart and 7 miles on foot, showed me 14 colonies of the great bees, some of them containing a bushel of bees and having combs 4 or 5 feet long and 3 to 3½ feet broad! But the lowest down was 50 feet from the rough rocky bed at the base of the mighty rock itself, and others were a hundred feet above us upon the under side of a shelving projection, quite inaccessible. Two or three could, at

great risk, be gotten at; we crept into the cleft of the great rock, ascended a slanting pole 30 feet, then built a perpendicular ladder of poles and ratans 50 feet up the face of the rock, after which, hand-over-hand, we went up about 30 feet of very steep rock, perfectly bare and solid, our only hold being our bare feet and a single ratan attached to a boulder above. Once up here, we could go within 20 feet, along the ledge, to the place where most of the bees were located. I had put on my shoes, but the jar of the rocks made the bees angry, and I removed the shoes. I made the examination in the day-time, and at night we were to take the bees.

The men considered it so dangerous for me, that it was only by insisting upon it that I succeeded in accompanying them. I had little faith that they would get me the bees in good shape, as they asserted they would. In a fearful, blinding, thunder-storm these natives let one of their number down, by means of a rope, a very steep decline some 30 to 40 feet, where he slipped a sack over the comb and bees and cut the former between the honey and brood; then he cut the honey from the rock and came up with his sack of broken comb and bees. He had a torch, and I suppose made such use of it as to prevent $\frac{1}{2}$ of the bees from getting into the sack alive. Of course I protested, and to satisfy me they motioned that I should go up next time.

I followed them, and, behold, we went by a passage that I had not found before, right through the center of the great rock which rested upon the immense mountain-like block up whose side we had climbed. It was a most tortuous and difficult passage, but at last we emerged at the top and found ourselves upon a rock about 10 or 15 feet square at the top. In a fissure, roofed by a small rock, and into which I could step, since it was, in fact, a smaller cave, was a colony of the great bees. With smoke I cleared the bees away a little and began fitting the combs into a box which we had hauled up with a rope. There were some 40 or 50 lbs. of very fine honey. I had a box which would hold about a bushel and a half, but after fitting 3 combs of brood and honey, and putting in about $\frac{2}{3}$ of the bees, I was obliged to leave the rest to the natives. They feasted themselves upon honey and sealed brood, or, in fact, brood in any stage was a choice bit for them. The rocks were wet and slippery, so that it required great care in letting down the box of bees, as well as in moving about.

Thus, at midnight upon this great rock more than a hundred feet up in the air, with the moon and stars looking down upon us and the clouds below us, with 4 wild Cingalese hunters as my companions, their tawny skins invisible except where a single cloth, the size of a pocket handkerchief, was wound about them, and far from civilization, in a dense ebony forest, I got the bees I now have with me. It was not a very safe journey down the rock so slippery with the fallen rain, but it had to be made. I breathed freer when my feet were again on the ground below. We camped under the edge of the rock and in the morning started for the village, where we had left some things. The bees were carried by men some 13 miles, and then brought in a 2-wheeled ox-cart 16 miles, thence by coach 12 miles, and by rail 50 miles.

I made many excursions, but found only one other colony of *Apis dorsata*. While getting this from a tall tree on a steep declivity, I got soaking wet, and had 4 or 5 miles to walk in the night air. Then I do not think that the water was very good.

There were many sick with fever, and this was one of the very bad districts. Notwithstanding the greatest precautions, I was soon down with the fever—the jungle malarial fever of Kurunegalla. There was no medical aid, and I grew worse; at last, in desperation, I walked several miles through the jungle and went 9 or 10

in an ox-cart to where I could get some medicine, then I went by coach and sail to Colombo, where I was well cared for by the editor of the paper for which I had written some articles. During the last 10 days of my stay in Ceylon I suffered intensely—more than in all my life before. At last, being so weak I could hardly stand, I got on this steamer. I have been gaining strength since then, having had no fever, so now I feel quite like myself, though the heat is fearful.

You can well imagine that, sick upon my bed for nearly a week before leaving, I could do little or nothing to prepare the bees for shipment, and just when I had learned to know how to handle the new bees, I was prevented from getting more of them. I felt so well and had such great hope, at the end of the first 2 weeks in Ceylon, that I should at last solve the mystery regarding this wonderful bee that, though I had given up all hope of getting enough colonies to pay expenses, still I stayed over another steamer, determined to make the greatest effort to know about the value of these bees.

I cannot say, exactly, as to what we may expect of them, for I do not think I gave them even a fair trial during the few weeks I had these colonies. However, they did not fix up their combs readily, nor did they gather much; besides the rascals would not take the sugar syrup much faster than they wanted it to eat, but they amused themselves by fighting each other, and really stinging to death the weaker members of their own family. Their stings are not to be feared, nor are their tongues as long as I expected to find them. They do get honey, and can be kept in well ventilated hives, yet I must consider their introduction into Europe and America as a very doubtful experiment, not because they are not likely to stand pretty cold weather, for they are found in the open air in exposed situations on the tops of high mountains, but I hardly believe they will distinguish themselves as honey gatherers.

To get them, there should be at least two bee-masters together, and they should come prepared to spend some months at the work, if a thorough trial of the race and positive results were to be attained.

A letter, written a month ago by Mrs. Benton, was received by me at Aden, and informed me that you wished me to take bees to Cyprus. I shall be glad to get them there alive. Mrs. Benton further says, that on account of black plague, which is raging in Mesopotamia and parts of Syria, quarantine has been established in Syrian ports, and between Beyrout and Cyprus, so that, unless I come via Alexandria, I may be delayed considerably. I hope to learn that by this time the ports have been opened, as, if I have to go from Suez by rail to Alexandria and then take the English steamer, I think the expense will be greater, and, if I should not just catch the English steamer in Alexandria there would be several days delay there. Several lines run from Port Said to Beyrout, and there I would get the English or Austrian Lloyd without much delay. Hoping for the best, I am, yours truly,

FRANK BENTON.

The Caledonian Apian Society will hold its Annual Bee and Honey Show, at Sterling, Scotland, on July 26 to 29, 1881. We have received its Premium List, by the courtesy of its efficient Hon. Secretary, Mr. Robert J. Bennett, of Glasgow. It presents a large and varied list of cash prizes, medals and diplomas, and we hope it will be a very successful show.

In our next issue we expect to give the table of winter losses, so far as they are heard from. We intended to have given it this week, but it is crowded out.



MISCELLANEOUS.

California Honey Crop.—In reference to this, the San Francisco Grocer says:

This year, owing to a reported scarcity of bee food in some localities, a short crop is anticipated, estimated all the way from twenty to fifty per cent. But as similar fears were entertained a year ago, they may again prove to be unwarranted.

The Crops.—The views of some of the Western Boards of Agriculture concerning the crops for the present season are as follows:

In Ohio the yield is expected to be about 80 per cent. of that of last year, the early sown being the best. The acreage in Michigan is about the same as in 1880, and only 10 or 12 bushels per acre are looked for. Indiana expects a crop of only 30,000,000 bushels, as against 47,000,000 last year, the quality being excellent. Wisconsin has a large acreage in spring, but a half breadth of winter wheat, and the crop is in fine condition. The Iowa board estimates the spring-wheat crop at half that of last year, and the winter sown at 44 per cent.

The Linden or Basswood in Bloom.—Mrs. L. Harrison, in the *Prairie Farmer* remarks as follows:

While I am writing, a bouquet from the linden (*Tilia Americana*) is by my side. About $\frac{2}{3}$ of the buds are open, and the fragrance is refreshing. This magnificent shade tree reigns supreme in the profusion and quality of its honey. During the opening of its pale yellow bloom, its branches are enlivened by the humming of bees and buzzing of flies that are reveling upon its sweetness, and the bees are so loth to leave this treasure house of nectar that they spend the night among its leaves, carrying home a load with the first morning light. The largest amount of honey gathered by one colony in one day on record was from this elegant tree. Therefore, during its bloom every facility should be afforded the little gleaners, that they may make the most of its harvest. Every impediment to their flight should be removed, such as heads of grass or tall weeds, and an easy egress and ingress provided. As fast as surplus boxes are filled and capped, they should be removed, and no colony compelled for want of room to unwilling idleness. Care should be taken to procure the honey in the neatest and most attractive way, so that it will please the eye and be in the best marketable shape. Honey must necessarily be a short crop, as so few bees survived the past winter, and reports from California are not flattering, owing to very late frosts killing the bloom. Bee-keepers should be vigilant and ready to take advantage of every flow of nectar, and so remedy, as far as possible, the unprecedented losses of the past winter.

Where our Forests are Going.—The Fishkill, N.Y., *Standard* remarks as follows on this subject, showing that our natural bee-pasturage is fast passing away, and that the successful bee-keeper must plant for his bees:

To make shoe pegs enough for American use consumes annually 100,000 cords of timber, and to make our lucifer matches, 300,000 cubic feet of the best pine are required every year. Lasts and boot trees take 500,000 cords of birch, beech and maple, and the handles of tools 500,000 more. The baking of our bricks consumes 2,000,000 cords of wood, or what would cover with forest about 50,000 acres of land. Telegraph poles already up represent 800,000 trees and their annual repair con-

sumes about 300,000 more. The ties of our railroads consume yearly 30 years' growth of 75,000 acres, and to fence all our railroads would cost \$45,000,000, with a yearly expenditure of \$15,000,000 for repairs.

These are some of the ways in which American forests are going. There are others; our packing boxes, for instance, cost in 1874, \$12,000,000, while the timber used each year in making wagons and agricultural implements is valued at more than \$100,000,000.

Will Bees Pay in Oregon?—This question is answered by the Oregon Farmer in the following language:

If asked, "Will bees pay as well in Oregon as in the Eastern States?" my answer would be, Yes, provided the same care and attention is bestowed upon them here as in the East. By this I mean that they will pay as is the average in the Eastern States, leaving out the certain favored localities.

Our winters are milder, and if the hives are sheltered from the rains, every strong swarm that is well provided with honey and has a strong, healthy queen, will winter safely 99 times out of 100.

In the spring, in this locality—the Willamette valley—the earliest and most important bee forage is our willows, which line the river banks and small streams. From these trees the bees obtain pollen as early as the first week in February. Next in importance are the dandelion. About the first of April the maple opens out a perfect harvest of honey and pollen for the bees, and being supplemented by the peach, plum, pear and apple blossoms, enable the bees to build up strong and prepare for the most important crop of all, the white clover. This begins to open about the first of June and is in reality the main dependence for our surplus honey. The flavor of this honey is unsurpassed, and in favorable seasons the yield continues about 6 weeks, when the honey season, as far as surplus is concerned, may be said to be virtually over. In August and September the bees gather their supplies from golden rod and various wild blossoms to be found in our forests. In our list of honey-producing plants we must not overlook the locust and the blackberry, both of which are of considerable value in their seasons. In regard to the yield of surplus honey for the season of 1880, among my own bees it was from 2 up to over 80 pounds, the average being about 42 pounds. The same bees also increased by swarming to rather more than double.

Perhaps the best result from any one colony was 50 pounds surplus and four swarms, all of which were large. The worst enemy to bees in Oregon is foul brood, now chiefly confined to those who keep bees in box-hives. Moths are not numerous, and with strong colonies need not be feared.

Adulteration of Food.—By the San Francisco (Cal.) *Examiner* we learn that the Chamber of Commerce, of that city, has drafted a bill against the adulteration of food, to be presented to Congress, next winter, and proposes to exert its utmost power to have it pass. Mr. Steele, at that meeting, made the following very pertinent remarks:

He said there was a great and urgent necessity for taking some steps to check the horrible and dishonest adulteration of food and drugs now being extensively carried on in America. He thought that the proposed bill was hardly binding enough, and had grave doubts as to whether it would pass, as a great body of adulterators would go to all lengths in lobbying against it. He referred to the honey shipments and said that the pure honey made on this coast could hardly find a buyer in Europe, on account of the glucose adulterations of New York. In this State, he said, that as yet there was no adulteration of sugar, though it was extensively practiced in the East. He thought a good plan would be to make every advertisement and label a contract, any breach of which could be recovered on. He then moved that Congress should be asked by the Chamber of Commerce to pass the proposed bill at once, and that the representatives of California in Congress be urged by the board to use their best efforts to secure its passage, which was carried.

SELECTIONS FROM OUR LETTER BOX

Dysentery and Lack of Ventilation.—I am very much pleased with the Weekly BEE JOURNAL. I put 17 colonies into my cellar last fall and lost 11; they lived till April; the dysentery was the cause of the trouble. They are doing well now. The dysentery was, I think, caused by their having no ventilation.

SILAS NOBLE.

Stillman Valley, Ill., July 1, 1881.

Encouraging.—The weather has changed at last! Again the sun shines out warm and clear, and the flat has come forth: "Let there be honey, and there is honey"—"honey as is honey," too. Yes, the "boom" has struck at last, and the bees are working as they have not worked before this season, or last, either. The long continued wet weather has kept the white clover blooming continuously for the last 5 weeks, and it promises to continue for the next two, so that there is some hope of a good harvest.

HARRY G. BURNET.

Blairstown, Iowa, July 2, 1881.

Honey Crop.—The honey crop is almost a complete failure in Los Angeles and San Diego counties, Cal.; Ventura county also has a very small crop.

H. S. KIMBELL.

Cucamonga, Cal., June 25, 1881.

Bees Doing Well.—Our bees are doing well this spring. We only lost 16 out of 85, and wintered on the summer stands. About 2/3 of the bees in this section died during the winter.

FOSTER & HODGE.

York, Ill., July 3, 1881.

Honey Crop in Texas.—The first part of the season here was excessively wet and the latter part excessively dry—between the two we had about 10 days of fine honey flow. I shall not get more than 1/2 a crop of honey this year unless it rains in 2 or 3 days, for which there is not the least prospect.


W. H. ANDREWS.

McKinney, Texas, June 29, 1881.

Honey Plentiful.—Bees are doing well in this part of the country, with a fine prospect for a large yield of surplus honey. Accept our best wishes for the welfare of the BEE JOURNAL.

SCOVELL & ANDERSON.

Columbus, Kan., June 27, 1881.

[Messrs. Scovell & Anderson are the publishers of the *Kansas Bee-Keeper*, and with pleasure we give place to their very friendly item. The Weekly BEE JOURNAL presents its , and wishes its Kansas contemporary success.—ED.]

Well Enough.—I had 8 colonies left out of 22, this spring. I have 22 again; principally increased by natural swarming. Black-bee and box-hive men have almost become extinct in this section, although I transferred one colony this spring that had come through the winter similarly to that mentioned in the JOURNAL; it stood out-of-doors all the winter, without protection; it was strong and was preparing to swarm on the last of April.

JOHN M. PEARSON.

Tippecanoe City, O., July 1, 1881.

Unusual Amount of Clover.—The frequent rains of late have caused an unusual growth of white clover with an abundant show of flowers, and bees are having a good time of it. Mine began swarming on May 20, and are still keeping it up, but they cannot equal my neighbor's; Thos. Camerer had 2 colonies in the spring, one has cast 6 and the other 3 swarms, giving him 11 colonies now.

L. JAMES.

Atlanta, Ill., July 2, 1881.

That Fertilizing Cage.—I have several persons testing my fertilizing cage and await the result before describing it for the BEE JOURNAL. I am making experiments this summer endeavoring to lengthen the tongues of the worker bees by careful and judicious crossing.

M. B.

Fincastle, Ind., July 1, 1881.

Chips from Sweet Home.—While I was at church (I seldom go), a swarm entered one of my hives. Up to June 20 I did not see one live honey bee on any bloom on my place, although I watched closely. Three of us have had a swarm enter our depopulated hives.

D. D. PALMER.

New Boston, Ill., June 28, 1881.

Alphabetical.—I see that next year the BEE JOURNAL is to be enlarged. I must say I like it better and better every week; I cannot do without it, and wish it and its editor prosperity.

A.—AMERICAN BEE JOURNAL.

B.—Best bee paper printed.

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S. C. FREDERICK.

Arcadia, Kas., June 25, 1881.

Large Yield of Honey.—I send sample of honey from wild China, a tree that grows in our Texas bottoms. How does it compare with white clover honey? The linden commenced blooming May 15; when it is nearly out of bloom, then the wild China comes in, which gives us about 4 weeks of good honey flow. Then horsemint comes in, giving very good honey. My bees have done very well, so far. In the last 20 days I have taken 4,800 lbs. extracted, and 600 one pound sections; the largest yield from one hive (3 story simplicity), being 240 lbs. I took from it 120 lbs., gathered in 7 days, and all sealed over nicely. In July the milk weed blooms, which gives us a good flow of sharp honey. In October and November we have an abundance of golden rod. I wish the AMERICAN BEE JOURNAL much success.

J. W. ECKMAN.

Richmond, Texas, June 20, 1881.

[It is very much like white clover honey in appearance and flavor, but somewhat thinner. It should bring about the same price.—ED.]

Basswood Promising.—The clover honey yield is small. The basswood is opening and is promising for a good honey yield.

JAMES HEDDON.

Dowagiac, Mich., July 1, 1881.

The Honey Yield in Canada.—I am so well pleased with the Weekly BEE JOURNAL, that I would not be without it if I only had 1 colony of bees. Bees are doing extra well in this section just now, and are gathering lots of honey. Bees wintered well around here last winter, considering how they fared in other places. The loss, so far as I can find out, would be about 10 per cent; but bees are mostly kept in box hives in this country, with the exception of a very few, and it is hard to induce people to use the frames. My report for 1881 is as follows: I put 84 colonies into winter quarters, and

lost 9 colonies in winter, and 11 more by dwindling after putting them out. I had 64 to begin the season with, and they are all doing well. My bees are in the simplicity hives, with the standard Langstroth frame. I expect we will have a large yield of honey here this season. Our main source for honey is from white clover and basswood, which is here in any quantity.

JOHN W. CALDER.

Williamstown, Ont., June 20, 1881.

Poor Yield of Honey.—White clover everywhere, but the continued north winds and frequent rains make me and the bees quite discouraged. I read, with interest, all the reasons given for last winter's disasters, but to me it is no "marvel of surprise," that bees from sunny Italy cannot live in our climate, in hives 1 inch thick, even with all our chaff. We pay a price for all our higher civilization and cultivation, and we have our choice between the old log gum or the bees' natural home, the mixed honey and safe wintering, or nice prize boxes of honey and winter losses.

MARY E. ROGERS.

Flint, Mich., June 27, 1881.

The Honey Crop.—I am not going to try to pull through the worst honey season we have had for 20 years without the BEE JOURNAL. The locust bloom was good for 4 days; then it ceased. The white clover is a failure; not more than one blossom in a thousand to what there generally is, and the heavy rains have washed all the honey out of what blossoms there are. The white clover season is over, with us, and the basswood is in full bloom. I think fully half of the bees in movable frame hives in this county died, while those in box hives came through with scarcely a loss; not more than 2 per cent, at most. Bees have thrown out more swarms this season than for 3 years past. I use the Langstroth hive, and lost 4 out of 11 last winter. My best colony, last year at this time, produced 85 lbs., and now the best I have out of 14 has given but 20 lbs. of surplus. I think the JOURNAL is the bee-keepers' best friend.

THOS. J. NICHOLS.

New Richmond, O., June 24, 1881.

New Crop of Honey.—By the end of this week I shall have 50 barrels of extracted honey. The barrels hold 47 gallons each, and the honey is of good quality. I have 300 colonies in good condition.

L. LINDSLY.

Waterloo, La., July 4, 1881.

Top vs. Side Storing.—About all our bees are now working in sections, placed at the sides, while very few are at work on top. If it is objected to let the results of experience pass as argument, would it not be more reasonable to throw aside theory, no matter how plausible it may appear, when facts and actual experience prove the contrary? We have had an abundance of white clover for the last 3 or 4 weeks, but the weather has been very unfavorable to receive any benefit therefrom. Throughout the month of June it has been cool, with north winds prevailing most of the time; the nights especially have been too cold to admit of bees working in sections. The thermometer has stood near the freezing point many nights, and several light frosts have been noticed in some localities. Of course we cannot expect progress in our surplus receptacles unless we have warm nights. The prospect, however, looks a little more encouraging just now, and if the present change should continue for a few weeks, we may yet have a good flow of honey from basswood. Since writing the foregoing, we have taken a lot of finished sections from our side-storing frames. We have hardly any sections on top, that are even partly capped, so far, and we are more and more convinced that side-storing is an advantage.

GREINER BROS.

Naples, N. Y., July 2, 1881.

Brushing Bees from the Combs.—A novice in handling bees wishes the BEE JOURNAL to tell her the best way to get frames of brood or honey clear of bees. We are told to shake them off, but there must be a particular way to shake them that I do know of, for that plan to answer, and if they are brushed off with a wing or feathers they get furious, and small blame to them for resenting such rough treatment. So, kind JOURNAL, in the interests of humanity, pray tell us how to proceed.

H. F. B.

[There is no better method, that we are aware of, than to use a little smoke judiciously, then with the soft edge of a turkey-wing feather lightly brush the bees off. During hot weather, considerable skill is required to shake off the bees, as the combs are very tender, and break out easily.—ED.]

Calling Things by Wrong Names.—MR. EDITOR: On page 204 of the BEE JOURNAL, you say: "Calling things by wrong names leads to endless trouble and vexation," and yet, you say on page 206, "Yes; there are fertile workers." Why this *adulteration*? Why not say "laying workers"? If they were fertile, would not their eggs produce other workers, like those of a fertile queen?

CRITIC.

[We think had "Critic" consulted Webster's Unabridged, he would not have been so hasty. Fertile or laying workers produce eggs, but do not reproduce workers; all queen bees are supposed to be fertile, even though not mated with a drone, but they do not reproduce queens or workers unless properly mated with a drone. If the orthographical definition and universal custom can sanction the use of a special phrase, then "fertile" worker is a proper expression, and Critic will have to exercise his "fertile" brain on some other technicality.—ED.]

A Month Behind.—My bees came through to the 1st of April well, but dwindled then and had to be fed much. They are one month behind in quantity of bees and honey, compared with 1880.

J. A. BURROW, M. D.

Santa Fe, Tenn.

It has Almost Rained Honey.—After losing all my bees (150 colonies) I bought 6 colonies of black bees. I now have 28 colonies in fair condition, with 24 laying queens. I expect to have 50 colonies in the fall, and I think I shall succeed. I have plenty of honey and combs on hand from the hives where my bees died. It has almost rained honey in this locality this year.

A. C. BALCH.

Kalamazoo, Mich., July 7, 1881.

Loss 25 per cent.—I lost 25 per cent. of bees last winter from starvation. I use the 10-frame Langstroth hive; wintered in a cellar under a barn, built on a side hill, the lower side facing the east; thermometer 30° to 35°; absorbents on top of frames, 3 inches of buckwheat chaff; caps on, front entrance open; dysentery showed itself in spring, but not to any amount.


C. McDERMOTT.

Malone, N. Y., June 6, 1881.

Doubled.—I have already doubled my number of colonies (I lost none last winter). They are storing honey very fast from white clover.

JOHN HERON.

Lockridge, Iowa, June 14, 1881.

 The Northwestern Bee-Keepers' Association will meet in Chicago, on Tuesday and Wednesday, October 25 and 26. All bee keepers are cordially invited to attend. It is desired to make this one of the most interesting conventions ever held in the United States. C. C. MILLER, M. D., Pres.

C. C. COFFINBERY, Sec.

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J. R. M. ALLEN.

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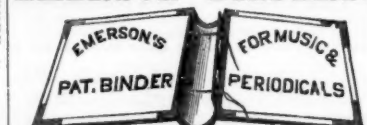
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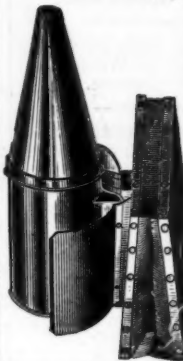
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